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09/544,523	04/06/2000	MIKEL A. LEHRMAN	ML-1	7812

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EXAMINER

TRAN, NHAN T

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2622

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/544,523	Applicant(s) LEHRMAN, MIKEL A.	
	Examiner Nhan T. Tran	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 and 30-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 and 30-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/19/2007 has been entered.

Response to Arguments

2. Applicant's arguments filed 7/19/2007 with respect to claims 30-33 have been considered but are moot in view of the new ground of rejection.

3. Applicant's arguments filed 7/19/2007 with respect to claims 1-28, 34-38 have been fully considered but they are not persuasive.

The Applicant asserts:

(i) Watanabe does not show a computer having a display operable to display a digital image as required in claim 11 (remarks, page 17).

(ii) Watanabe and Freeman directly contradict, and teach away from one another since these are unrelated devices. Thus, combined teaching of Watanabe and Freeman in claims 19, 22 & 36 is merely hindsight reconstruction and would result an inoperable device (remarks, pages 18-19).

(iii) Watanabe, Freeman, Etoh cannot be combined to arrive at claims 1, 4-7 for similar reasons provided in (ii) above.

In response, the Examiner understands the Applicant's arguments but respectfully disagrees with the Applicant's assessments of the claims and prior art as follows:

(i) As stated in the previous office action, in Watanabe, the computer is the digital camera 10 itself which includes a system controller (11) and signal processor (16) in addition to user interface input (buttons). See Watanabe, Figs. 1-7. Since the claim *does not require* that the display ("a second display") provided on the computer is different from the display (24) of the portable photo album (memory cartridge 20), the computer's display is therefore considered as the display (24) of the portable photo album when this photo album is attached to the computer (the digital camera 10).

(ii) The Examiner respectfully submits that Watanabe and Freeman do not teach away from each other. First, both Watanabe and Freeman commonly relate to a pocket-sized photo display device to provide a compact, user convenient image displaying device. Freeman offers a more advanced device by making the device with flexible material (claims 19 & 36) to withstand bending force when it is stored in a pocket or a wallet, and incorporating sound (claim 22) into the image so as to improve its reliability with the flexible material (see Freeman, col. 6, lines 25-30, 59-65) and providing more entertainment by playing back both image and sound as address in the previous office action. Thus, there is a clear motivation (not a hindsight reconstruction) to combine the teachings of Watanabe and Freeman to improve the portable photo

Art Unit: 2622

album device without destroying the principle operation of the device. It cannot be said that Watanabe in view of Freeman would produce an inoperable device. In fact, it would result in a complete functional and enhanced pocket-photo album by one skilled in the art using the complementary teachings from Watanabe and Freeman.

(iii) Similar to the reasons discussed in (ii) above, the teachings of Watanabe, Freeman and Etoh have a common field to portable image display device, and they would compensate each other to provide a more enhanced, reliable portable image display device recognized by one skilled in the art.

Claim Objections

4. Claim 32 is objected to because of the recitation of "the memory card" which should be corrected to read as -- a memory card --. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 recites the limitations "the one or more digital images" and "said one or more digital images" in the last paragraph of the claim. There is insufficient antecedent basis for this limitation in the claim since there are two different antecedent "one or more digital images" in the portable electronic photo album

and the computer. It is unclear in the claim which "one or more digital images" being referred to. Therefore, claim 11 renders indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 11, 13-14, 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe et al. (US 4,887,161).

Regarding claim 11, *(note that some limitations of this claim are rejected as best understood in view of the 35 U.S.C 112 second paragraph above)*, Watanabe discloses a system (Figs. 1-7) comprising:

a portable electronic photo album (memory cartridge 20 shown in Figs. 1-7) that includes an electronic display (display 24), memory (22), and processing circuitry (CPU 21, D/A converter and driver 25A and other peripheral circuits as shown in Fig. 7) that displays one or more digital images stored in the memory, said electronic display, memory and processing circuitry being located within a housing (memory cartridge housing as shown in Figs. 1 & 5) that fits within a pocket-sized wallet (see col. 5, line 60 – col. 6, line 15, wherein the memory cartridge can be placed in a pocket-sized wallet as an ID card);

a computer (digital camera 10 including system controller 11 and signal processor 16 shown in Fig. 4, col. 4, lines 16-24), having a second display (display 24 when it attached to the digital camera 10 as shown in Figs. 2 & 6) that receives the one or more digital images as a result of first user input (shutter button 17) and sends the one or more digital images to the portable photo album as a result of second user input (an input for the user to save the captured image) for storage in the memory (see col. 5, lines 30-38), wherein said one or more digital images are operable to be displayed on the second display (see Figs. 2 & 6 and col. 5, lines 51-60 and col. 6, lines 50-61 and note the Examiner's response in section 3 above).

Regarding claim 13, Watanabe clearly discloses means for capturing the one or more digital images, wherein the means for capturing is a digital camera (see Figs. 2, 4, 6 & 7; col. 4, lines 7-40).

Regarding claim 14, as seen in Figs. 2, 4, 6 & 7, col. 4, lines 7-40, the system comprises means for capturing the one or more digital images, wherein the means for capturing is a scanner (note that the image sensor 13 of digital camera 10 represents a scanner as it scans an subject by means of vertical and horizontal lines and converts optical signals into electrical signals of an image).

Regarding claim 17, Watanabe also discloses that the computer includes application software (a program) for manipulating the captured digital images (see col. 4, lines 19-24).

Regarding claim 18, as shown in Figs. 2 & 6, the application software includes the ability to display on the second display (24) the one or more digital images exactly as the one or more digital images appear when displayed on the electronic display of the portable photo album (see col. 5, lines 30 – col. 6, line 18, wherein the display 24 is used as a second display when attached to the digital camera 10, and also used as a photo album display when detached from the digital camera for displaying exactly the same captured images).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 15, 16, 19, 22, 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 4,887,161) in view of Freeman et al. (US 6,068,183).

Regarding claim 19, Watanabe discloses a pocket-sized portable electronic photo album (Figs. 1, 4, 5 & 7; col. 6, lines 10-15) comprising:

- a housing (Figs. 1 & 5);
- an electronic display (24), located within the housing, capable of displaying user-provided digital images (digital images captured and sent from the digital camera 10);
- memory (22), located within the housing, that stores a plurality of user-provided digital images, wherein the plurality of user-provided digital images are loaded into the memory as a result of user input (see Figs. 1-7 and col. 5, lines 30-38 and col. 6, lines 10-15);

processing circuitry (CPU 21 shown in Fig. 7), located within the housing and being coupled to the memory (22) and the display (24), the processing circuitry operable to display on the electronic display the plurality of user-provided digital images stored in the memory (col. 5, line 60 – col. 6, line 15).

Watanabe does not teach that the electronic display is a flexible display.

However, Freeman teaches a display of a chip card (Fig. 1A) that is made flexible to prevent crack or damage of the display when the card is stored in a pocket, wallet or purse (see Freeman, col. 6, lines 25-30, 59-65).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Watanabe and Freeman to make the display in Watanabe with flexible material so as to prevent crack or damage when it is stored in a pocket, wallet or purse as suggested by Freeman above.

Regarding claim 22, Watanabe also discloses all limitations of claim 22 by the analyses of claims 11 & 19 except for teaching sound to be integrated with at least one of said user-provided digital images.

As taught by Freeman, a wallet-sized Chip Card (10 shown in Figs. 1A-2) comprises an internal memory for storing a plurality of images and associated sound that will be played back on a display and a speaker of the card for the user to view the images and listen to the sound (see Freeman, col. 1, lines 50-59; col. 3, lines 26-38 and col. 6, lines 59-65).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the wallet-sized photo album of Watanabe by integrating sound with the user-provided digital images and improving the photo album to have both display and speaker located within the album's housing so that the user would be able to not only view the images but also listen to the sound associated with the image, thereby providing more entertainment to the user.

Regarding claim 33, this claim is also met by the analyses of claims 11 & 19.

Regarding claim 34, see the analysis of claim 22 for a speaker for producing sound.

Regarding claim 35, Although Watanabe does not teach that video clips are stored in the memory and are playable by the processing circuitry to be displayed to the

electronic display, this lack of teaching is compensated by Freeman's teaching in col. 3, lines 60-61, wherein a sequence of images for animation are stored in the memory and are playable on the display by the dedicated processing circuitry (i.e., microprocessor 16).

Therefore, it would have been obvious to one of ordinary skill in the art to enhance the apparatus of Watanabe for storing video clips for allowing the user to watch motion images in addition to still images, thereby providing more entertainment to the user.

Regarding claim 36, all limitations of claim 36 are also met by the analysis of claim 19.

Regarding claim 37, it is clear that the housing structure is hard enough to stay in shape as shown in Watanabe, Figs. 1 & 5.

Regarding claim 38, see the analysis of claim 35.

Regarding claims 15 & 16, although Watanabe discloses means (digital camera 10) for capturing the one or more digital images (Fig. 4, col. 4, lines 7-40), Watanabe does not teach the means for capturing is a CD-ROM or a floppy disk which includes digital images. Freeman teaches a Chip Card (10 shown in Fig. 5B) can be connected to a PC or Laptop for transmitting and receiving digital image data which is captured

and stored in an inherent disk (i.e., hard disk, CD-ROM or floppy disk; see Freeman, col. 5, lines 29-35).

Therefore, it would have been obvious to one of ordinary skill in the art to capture digital image data using a CD-ROM, floppy disk available in the computer as inexpensive and large capacity peripheral devices for storing and transferring images in a conventional method.

8. Claims 1, 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 4,887,161) in view of Freeman et al. (US 6,068,183) and in further view of Etoh (US 5,729,289).

Regarding claim 1, by incorporating the analyses of claims 19 & 22, Watanabe in view of Freeman discloses all limitations of claim 1 for an portable electronic photo album comprising: a housing structure that fits within a pocket-sized wallet; an electronic display, located within the housing, capable of displaying user-provided digital images; memory, located within the housing, that stores the user-provided digital images; processing circuitry, located within the housing and being coupled to the memory and the display, the processing circuitry being operable to display on the electronic display the user-provided digital images stored in the memory; and a speaker located within the housing for playing sound (see claims 19 & 22).

As also shown in Fig. 5 of Watanabe, the portable electronic photo album includes user input buttons (23a & 23b) for switching between forward and backward

Art Unit: 2622

image frame displayed on the display 24. However, Watanabe and Freeman do not teach that the display area of the electronic display is more than half the size of the area of the surface of the housing structure about the electronic display and the electronic display is a touch-screen electronic display.

In Etoh, an electronic display (Fig. 1) has a display area (103) is more than half of the size of the surface of the housing structure (101) about the display, and the electronic display is a touch-screen display for the user to forward or backward among displayed images by touching areas 7a' or 7b' as shown in Fig. 4 (see Etoh, col. 5, lines 13-20, 35-40).

Therefore, it would have been obvious to one of ordinary skill in the art at to make the display area of the display in combined Watanabe and Freeman more than half of the housing structure to allow the user to easily view the image in the larger display screen while eliminating a number of mechanical buttons on the portable electronic photo album by implementing a touch-screen on the display for a better user interface.

Regarding claim 4, as shown by Etoh in Fig. 4, col. 5, lines 35-40, the housing includes at least one user input device (7a', 7b') for advancing which user-provided digital image is displayed on the electronic display.

Regarding claim 5, as shown by Etoh in Fig. 4, col. 5, lines 35-40, the electronic

Art Unit: 2622

display also displays at least one user input location (7a', 7b') for advancing which user-provided digital image is displayed on the electronic display.

Regarding claims 6 & 7, it is also clear in the combination that the electronic display is a liquid crystal display (see Watanabe, col. 3, lines 26-33 or Etoh, col. 5, lines 13-20) and the display is flexible (see claim 19 for the flexible LCD taught by Freeman).

9. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. and Freeman et al. as applied to claim 22 and further in view of Hornback (PCT WO 99/56463).

Regarding claim 25, Watanabe discloses an electrical connector (29/30) mounted to the housing as shown in Figs. 1-7 for loading user-provided digital images into the memory (22). Watanabe further suggests that his electronic photo album is not only arranged to be connected to a digital camera but it can also be connected to other recording apparatus or a playback apparatus by means of electrical contacts (see Watanabe, col. 6, lines 19-25). Watanabe and Freeman do not explicitly describe that the means of electrical contacts is a cable connected to the connector.

Hornback teaches communications between electronic devices (i.e., between photo albums 130 and 404 shown in Fig. 4) is established for sharing images between the electronic photo albums by using either USB, FireWire cables, or infrared interface (page 7, lines 19-24).

Therefore, it would have been obvious to one of ordinary skill in the art to alternately configure the photo album in Watanabe and Freeman by incorporating the teaching of Hornback to use a communication cable (i.e., USB cable, FireWire cable, etc.) as a communication medium to extend a distance between devices for sharing digital images instead of using a direct contact, thereby providing location flexibility between devices.

Regarding claim 26, see the analysis of claim 25, wherein USB or FireWire is a conventional interface cable.

Regarding claim 27, Watanabe and Freeman further teaches that the user-provided digital images can be loaded into the memory via a wireless communication port (see Freeman, col. 2, lines 66-67 and col. 4, lines 17-20) but are silent about the wireless communication port being an infrared I/O port. Such lack of teaching is compensated by Hornback on page 7, lines 19-24 in which the communication interface between an electronic photo albums (103, 404 shown in Fig. 4) can be an infrared interface.

Therefore, it would have been obvious to one of ordinary skill in the art to further modify the photo album in Watanabe and Freeman to use one of available wireless technologies including infrared I/O port for implementing the wireless communication suggested by Hornback. Doing this would enhance mobile communication between the devices without using a cable or direct contact.

Regarding claim 28, although Watanabe teaches an electronic photo album (20) as analyzed in claims 11 & 33 above, wherein the user-provided digital images are loaded into memory via a connector (29/30), Watanabe and Freeman both fail to teach that the electronic photo album comprises a Flash memory connector such that the digital images are loaded into the memory via a Flash card connector to the memory connector. However, it is generally known in the art that an electronic photo album or a memory card can be a Flash memory having compatible Flash memory connector for transferring image data as suggested by Hornback in page 7, lines 11-16.

Therefore, it would have been obvious to one of ordinary skill in the art to improve the imaging apparatus in Watanabe and Freeman by using a Flash memory technology having compatible Flash memory connector for loading image data into the memory so that the image data is retained in the photo album 20 without requiring power supply after being removed from the digital camera which is major advantage of the Flash memory (non-volatile) over other volatile memories, such as memory 22 in Watanabe that requires a backup power supply.

10. Claims 20, 21, 23 & 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. and Freeman et al. as applied to claims 19 & 22 and in further view of Rowland (US 5,801,970).

Regarding claims 20 & 21, Watanabe teaches the apparatus of claims 19 & 22 having a CPU as a processing circuitry as analyzed above. Watanabe and Freeman do not explicitly disclose an ASIC or PLD circuitry. However, Rowland teaches that it is well known for a processing circuitry to be implemented by either a CPU, ASIC or PLD circuitry (see Rowland, col. 4, lines 49-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an alternative and equivalent circuitry such as an ASIC or PLD in place of the CPU of Watanabe and Freeman for low cost and low complexity.

Regarding claims 23 & 24, see the analyses of claims 20 & 21.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 4,887,161) in view of Hornback (PCT WO 99/56463).

Regarding claim 12, Watanabe discloses the portable photo album system in claim 11 further comprising means (digital camera 10) for capturing the one or more digital images (Fig. 4, col. 4, lines 7-40). Watanabe discloses a common interface (an electrical connector 29/30) mounted to the cartridge housing (Figs. 1-7) for loading user-provided digital images into the memory (22) from the computer (controller 11 and signal processor 16 shown in Fig. 4). Watanabe further suggests that his electronic photo album is not only arranged to be connected to a digital camera but it can also be

connected to other recording apparatus or a playback apparatus by means of electrical contacts (see Watanabe, col. 6, lines 19-25). Watanabe does not explicitly disclose that the common interface is a cable.

Hornback teaches communications between electronic devices (i.e., between photo albums 130 and 404 shown in Fig. 4) is established for sharing images between the electronic photo albums by using either USB, FireWire cables, or infrared interface (page 7, lines 19-24).

Therefore, it would have been obvious to one of ordinary skill in the art to alternately configure the electronic photo album in Watanabe by incorporating the teaching of Hornback to use a communication cable (i.e., USB cable, FireWire cable, etc.) as a communication medium to extend a distant between devices for sharing digital images, thereby providing location flexibility between devices.

12. Claims 2 & 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al., Freeman et al., Etoh as applied to claim 1 and in further view of Rowland (US 5,801,970).

Regarding claims 2 & 3, Watanabe teaches the apparatus of claims 19 & 22 having a CPU as a processing circuitry as analyzed above. Watanabe, Freeman and Etoh do not explicitly disclose an ASIC or PLD circuitry. However, Rowland teaches that it is well known for a processing circuitry to be implemented by either a CPU, ASIC or PLD circuitry (see Rowland, col. 4, lines 49-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an alternative and equivalent circuitry such as an ASIC or PLD in place of the CPU of Watanabe and Freeman for low cost and low complexity.

13. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al., Freeman et al., Etoh as applied to claim 1 and in further view of Hornback (PCT WO 99/56463).

Regarding claim 8, Watanabe discloses an electrical connector (connector 29/30) mounted to the cartridge housing (Figs. 1-7) for loading user-provided digital images into the memory (22) from an external device (controller 11 and signal processor 16 shown in Fig. 4). Watanabe further suggests that his electronic photo album is not only arranged to be connected to a digital camera but it can also be connected to other recording apparatus or a playback apparatus by means of electrical contacts (see Watanabe, col. 6, lines 19-25). Watanabe does not explicitly disclose a cable connected to the connector.

Hornback teaches communications between electronic devices (i.e., between photo albums 130 and 404 shown in Fig. 4) is established for sharing images between the electronic photo albums by using either USB, FireWire cables, or infrared interface (page 7, lines 19-24).

Therefore, it would have been obvious to one of ordinary skill in the art to alternately configure the electronic photo album in Watanabe by incorporating the teaching of Hornback to use a communication cable (i.e., USB cable, FireWire cable, etc.) as a communication medium to extend a distant between devices for sharing digital images instead of using a direct contact, thereby providing location flexibility between devices.

Regarding claim 9, Watanabe, Freeman and Etoh further teaches that the user-provided digital images can be loaded into the memory via a wireless communication port (see Freeman, col. 2, lines 66-67 and col. 4, lines 17-20) but are silent about the wireless communication port being an infrared I/O port. Such lack of teaching is compensated by Hornback on page 7, lines 19-24 in which the communication interface between an electronic photo albums (103, 404 shown in Fig. 4) can be an infrared interface.

Therefore, it would have been obvious to one of ordinary skill in the art to further modify the photo album in Watanabe, Freeman and Etoh to use one of available wireless technologies including infrared I/O port for implementing the wireless communication suggested by Hornback. As doing this, it would enhance mobile communication between the devices without using a cable or direct contact.

Regarding claim 10, although Watanabe teaches an electronic photo album (20) as analyzed in claims 11 & 19 above, wherein the user-provided digital images are

loaded into memory via a connector (29/30), Watanabe, Freeman and Etoh fail to teach that the electronic photo album comprises a Flash memory connector such that the digital images are loaded into the memory via a Flash card connector to the memory connector. However, it is generally known in the art that an electronic photo album or a memory card can be a Flash memory having compatible Flash memory connector for transferring image data as suggested by Hornback in page 7, lines 11-16.

Therefore, it would have been obvious to one of ordinary skill in the art to improve the imaging apparatus in Watanabe, Freeman and Etoh by using a Flash memory technology having compatible Flash memory connector for loading image data into the memory so that the image data is retained in the photo album 20 without requiring power supply after being removed from the digital camera which is major advantage of the Flash memory (non-volatile) over other volatile memories, such as memory 22 in Watanabe that requires a backup power supply.

14. Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman (US 6,068,183) in view of Ray et al. (US 5,321,751).

Regarding claim 30, Freeman discloses a portable electronic photo album (chip card 10 shown Figs. 1A-2; col. 3, line 45 – col. 4, line 16) comprising:

- a structure that fits within a pocket-sized wallet (Fig. 1A and col. 6, lines 59-65);
- a magnetic strip (24 shown in Fig. 1B) located on the structure that includes card information, wherein the magnetic strip is operable to be swiped through a card reader

(card reader 34 shown in Fig. 3); an electronic display (14a/14b), located on the structure, capable of displaying digital images (col. 3, line 45 – col. 4, line 16);

processing circuitry (microprocessor 16), coupled to the structure and being coupled to the display, wherein the processing circuitry is operable to display on the electronic display one or more user-provided digital images (see col. 3, lines 32-39, 55-66).

Although Freeman teaches the chip card (10) including a magnetic strip (24) and a display (14a/14b), Freeman is silent about that the chip card is a credit card. However, it is well recognized by Ray that a card's magnetic strip is used to store credit card information for validation upon purchasing (see Ray, Fig. 1 and col. 1, lines 6-11).

Therefore, it would have been obvious to one of ordinary skill in the art to additionally store credit card information in the magnetic strip in Freeman's card so that the card would be used as a credit card for user convenience.

Regarding claim 31, the combination of Freeman and Ray also teaches a memory card (also the chip card 10 as it contains a memory) for storing the one or more user-provided digital images (see Freeman, Figs. 1A-2 and col. 3, line 45 – col. 4, line 16).

Regarding claim 32, Freeman further discloses that the portable electronic photo album comprising a display memory (the chip card 10 is also display memory as it has both a memory and a display in a single structure), wherein the processing circuitry

provides data from a memory card to the display memory for display on the electronic display (see Freeman, col. 3, line 32 – col. 4, line 16).

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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